

## EMCCD Camera

The Evolve EMCCD Camera makes experimental data quantifiable and reproducible by using the photoelectron to measure an image. It permits researchers to obtain real-time image measurements in terms of photoelectrons, as opposed to arbitrary imaging units, without having to complete secondary calibrations, thus providing a standardized way for scientists to compare images taken on different cameras and at different gain settings. Applications include super-resolution fluorescence microscopy techniques that make it possible to track what goes on inside a cell at nanoscale. The Evolve camera lets cell biologists capture the full scope of benefits of the emerging techniques while enabling reproducibility in imaging experiments.

**Photometrics**

For information 800-874-9789

[www.photomet.com](http://www.photomet.com)



## Single Molecule Detection

The Leica TCS SMD Series is a single molecule detection (SMD) system that offers an integrated platform for techniques such as fluorescence lifetime imaging microscopy, fluorescence correlation spectroscopy, fluorescence cross-correlation spectroscopy, and fluorescence lifetime correlation spectroscopy. The system integrates hardware and software from PicoQuant with the high-end confocal system, Leica TCS SP5 II. Leica's LAS AF software allows researchers to control a complete SMD experiment via one interface. The user-friendly system includes dedicated application wizards that guide the user step by step through SMD experiments and maximize the reproducibility of data. It features the universal SMD raw data format, in which a data file can be analyzed in various ways. Field upgrades of the Leica TCS SP5 and SP5 II confocal systems to TCS SMD systems are possible.

**Leica**

For information +49-(0)-621-70282801

[www.leica-microsystems.com](http://www.leica-microsystems.com)

## Microscope Family

The all-in-one FSX100 fluorescence and FluoView FV10i confocal laser scanning microscope systems enable even the most inexperienced users to create high-end research images. The all-in-one microscopes are designed to remove all of the complex steps involved in setting up and using advanced fluorescence and confocal microscopes, ensuring that users can concentrate on the images and data without any prior expertise in the control of the many components involved. By coupling high-quality microscopy and imaging hardware with precision automation and advanced software, the Olympus FSX100 and FluoView FV10i present simplified workflows so users can obtain high-quality images and image series by: loading their sample, defining their observation mode and regions of interest, and then capturing their images. It's as simple as set-select-capture.

**Olympus**

For information +49-40-2-37-73 – 5426

[www.microscopy.olympus.eu](http://www.microscopy.olympus.eu)

## Fluorescent Dyes and Kits

The DyLight 350 Fluorescent Dye is for the direct labeling of proteins and other biomolecules. The new dye, a derivative of aminomethylcoumarin acetate, fluoresces blue with excitation and emission wavelengths of 353 nm and 432 nm, respectively. The ultraviolet-excitable DyLight 350 Dye is a better choice for multiplexing experiments with green fluorophores. It is also more soluble, allowing for higher incorporation of the dye into

biomolecules. Its resistance to photobleaching enables data collection under demanding conditions. The DyLight 350 Dye can be measured with common fluorescence instrumentation. It is available as an amine-reactive ester or a sulfhydryl-reactive maleimide. DyLight 350 Antibody Labeling Kits are also available, with all the components necessary to perform three individual labeling reactions using 1 mg of IgG or similar protein quantities.

**Thermo Fisher**

For information 815-968-0747

[www.thermo.com/pierce](http://www.thermo.com/pierce)

## Laser Color Selection

The In Tune laser system offers the ability to select all wavelengths from 488 nm to 640 nm for use with the LSM 710 laser scanning microscope. The explosion of fluorescent dyes has opened opportunities for researchers, but their use has been limited by the requirement that the microscope system be equipped with an appropriate excitation laser. The In Tune system is meant to address this need by allowing cell biologists, physiologists, and researchers in biology, medicine, and biophysics to perform these fluorescence measurements. Whatever the excitation wavelength required, In Tune can match it perfectly to enable the use of new dyes in intensity or lifetime imaging experiments. Further expanding its range, In Tune can be used alongside other system lasers, from ultraviolet to far red.

**Carl Zeiss**

For information 800-233-2343

[www.zeiss.com/micro](http://www.zeiss.com/micro)

## Fluorescing Stem Cells

Three new MilliTrace stem cell lines express green fluorescent protein (GFP) under the control of various embryonic and neural stem cell markers. With their brilliant green glow, these cells offer scientists a quick, noninvasive way to monitor the behavior of specific stem cell populations as they proliferate, migrate, and differentiate into various lineages. The new cell lines feature GFP reporters under the control of nanog (mouse embryonic stem cells) or nestin and Sox-2 (human neural stem cells) transcription factors. The loss of these stem cell markers during differentiation causes down-regulation of the GFP, making it easy to spot cells that have not differentiated.

**Millipore**

For information 800-548-7853

[www.millipore.com/stemcells](http://www.millipore.com/stemcells)

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# Science

## New Products

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